

AD-A052 280

ARINC RESEARCH CORP SANTA ANA CALIF
MISSILE-X PROGRAM LOGISTIC ELEMENT MANAGEMENT PLAN FOR SUPPORT --ETC(U)
AUG 77 A N WINTER, A J FREMER
W77-1953-TN09

F/G 15/5

F04606-76-A-0087

NL

UNCLASSIFIED

| OF |
AD
A052 280



END
DATE
FILED
5-78
DDC

AD No.

DDC FILE COPY

AD A 052280

TECHNICAL NOTE

Mgr / A&V

Q
B/S

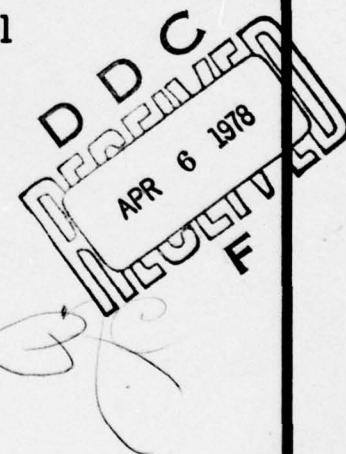
MISSILE-X PROGRAM
LOGISTIC ELEMENT MANAGEMENT PLAN
FOR
SUPPORT FACILITIES LEM

22 August 1977

Prepared for

DEPARTMENT OF THE AIR FORCE
SPACE AND MISSILE SYSTEMS ORGANIZATION (AFSC)
ICBM Program Office

Under Contract F04606-76-A-0087-R901



Publication W77-1953-TN09

ARINC RESEARCH CORPORATION

This document has been approved
for public release and sale; its
distribution is unlimited.

P.O. Box 1375/Santa Ana, Calif.

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE			READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER W77-1953-TN09	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER	9
4. TITLE (and Subtitle) MISSILE-X PROGRAM LOGISTIC ELEMENT MANAGEMENT PLAN FOR SUPPORT FACILITIES LEM		5. TYPE OF REPORT & PERIOD COVERED Technical note, PERFORMING ORG. REPORT NUMBER W77-1953-TN09	
7. AUTHOR(s) A.N. Winter A.J. Fremen	15	8. CONTRACT OR GRANT NUMBER(s) F04606-76-A-0087-R901	
9. PERFORMING ORGANIZATION NAME AND ADDRESS ARINC Research Corp. 1222 E. Normandy Place Santa Ana, CA 92702	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS 11 22 Aug 77 August 1977		
11. CONTROLLING OFFICE NAME AND ADDRESS DEPARTMENT OF THE AIR FORCE SPACE AND MISSILE SYSTEMS ORGANIZATION (AFSC) ICBM Program Office	12. REPORT DATE 13. NUMBER OF PAGES 29 15 30 p.		
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) DEPARTMENT OF THE AIR FORCE SPACE AND MISSILE SYSTEMS ORGANIZATION (AFSC) ICBM Program Office	15. SECURITY CLASSIFICATION OF THIS REPORT UNCLASSIFIED 15a. DECLASSIFICATION/DOWNGRADING SCHEDULE		
16. DISTRIBUTION STATEMENT (of this Report) UNCLASSIFIED/UNLIMITED			
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)			
18. SUPPLEMENTARY NOTES			
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Logistics Management Plan			
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This Support Facilities Logistic Element Management Plan is one of twelve plans supplementing the guidance and direction for the Integrated Logistic Support (ILS) program as delineated in the Missile-X Integrated Logistic Support Plan (ILSP). Whereas the ILSP provides general guidance and direction for integrating all logistic elements into the overall program requirements, this plan treats the specific actions, milestones, and coordination efforts of the Logistic Element Manager for Support Facilities (SF-LEM). It has been written to assist the SF-LEM in fulfilling his responsibilities toward achieving the ILS			

400 711

MISSILE-X PROGRAM
LOGISTIC ELEMENT MANAGEMENT PLAN
FOR
SUPPORT FACILITIES LEM

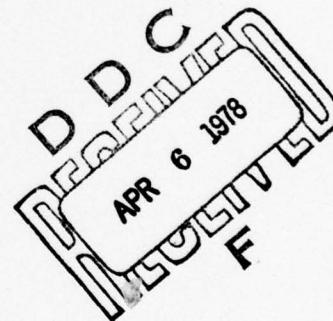
22 August 1977

One of 12 LEM Plans
Prepared for

DEPARTMENT OF THE AIR FORCE
SPACE AND MISSILE SYSTEMS ORGANIZATION (AFSC)
ICBM Program Office

Under Contract F04606-76-A-0087-R901 ✓

Prepared by
A. N. Winter
A.J. Fremer



ARINC RESEARCH CORPORATION

CORPORATE HEADQUARTERS
2551 Riva Road
Annapolis, MD 21401

SANTA ANA BRANCH
1222 E. Normandy Place
Santa Ana, CA 92702

Publication W77-1953-TN09 ✓

This document has been approved
for public release and sale; its
distribution is unlimited.

MISSILE-X PROGRAM
LOGISTIC ELEMENT MANAGEMENT PLAN
FOR
SUPPORT FACILITIES LEM

22 August 1977



SPACE AND MISSILE SYSTEMS ORGANIZATION
AIR FORCE SYSTEMS COMMAND

Prepared by
Logistics (MNL)
Deputy for Intercontinental Ballistic Missiles

MISSILE-X PROGRAM
LOGISTIC ELEMENT MANAGEMENT PLAN
FOR
SUPPORT FACILITIES LEM

22 August 1977



ACCESSION for	
NTIS	White Section <input checked="" type="checkbox"/>
DDC	Buff Section <input type="checkbox"/>
MANUFACTURED <input type="checkbox"/>	
J. S. I. CATION <input type="checkbox"/>	
BY <input type="checkbox"/>	
DISTRIBUTION/AVAILABILITY CODES	
BY	FOR <input type="checkbox"/> SPECIAL <input type="checkbox"/>

A handwritten mark, resembling a stylized 'P', is written across the bottom of the form.

Approved _____

Date _____

Lester E. Eklund, Colonel, USAF
Director, Logistics
Deputy for Intercontinental Ballistic Missiles

Approved _____

Date _____

Gerald C. Schwankl, Colonel, USAF
Director, Engineering
Deputy for Intercontinental Ballistic Missiles

Approved _____

Date _____

Aloysius G. Casey, Colonel, USAF
Assistant Deputy, Missile-X

FOREWORD

This Support Facilities Logistic Element Management Plan is one of twelve plans supplementing the guidance and direction for the Integrated Logistic Support (ILS) program as delineated in the Missile-X Integrated Logistic Support Plan (ILSP). Whereas the ILSP provides general guidance and direction for integrating all logistic elements into the overall program requirements, this plan treats the specific actions, milestones, and coordination efforts of the Logistic Element Manager for Support Facilities (SF-LEM). It has been written to assist the SF-LEM in fulfilling his responsibilities toward achieving the ILS objectives of the MX Program.

The majority of information contained in Sections 1 through 4 herein is common to all plans. Sections 5 and 6 present information pertinent to the SF-LEM's efforts.

CONTENTS

FOREWORD	ii
1. INTRODUCTION	1-1
1.1 Background	1-1
1.2 Purpose	1-2
1.3 MX Program	1-2
2. SCOPE	2-1
3. REFERENCE DOCUMENTS	3-1
4. PROGRAM MANAGEMENT	4-1
4.1 ILS Program Organization	4-1
4.1.1 Deputy Program Manager for Logistics	4-1
4.1.2 Logistic Element Managers	4-2
4.2 ILS Management Information System	4-4
5. GENERAL REQUIREMENTS	5-1
5.1 Integrated Logistic Support Program	5-1
5.2 Support Facilities Logistic Element	5-3
6. SF-LEM MANAGEMENT RESPONSIBILITIES AND TASKS	6-1
6.1 Responsibilities	6-1
6.2 Management Tasks	6-1
6.3 Preface to Task Table	6-3
APPENDIXES	
A Missile-X Program Logistic Element Manager Directory	A-1
B Acronyms and Abbreviations	B-1
C Schedule for the Support Facilities Logistic Element	C-1

1 INTRODUCTION

1.1 BACKGROUND

In accordance with DoD Directive 4100.35, the promulgating authority of AFR 800-8, and the guidance provided by AFP 800-7, the MX Program Office has implemented an Integrated Logistic Support program for the MX Weapon System. The ILS program, as delineated in the Integrated Logistic Support Plan (ILSP), is intended to ensure that the weapon system is designed with due consideration given to its supportability and that the required support will be attained within an affordable, minimum life cycle cost.

For the MX System, logistic elements – areas of support activity that collectively comprise the management concept of ILS – have been defined. These are:

Maintainability Interface (M)

Reliability Interface (R)

Nuclear Hardness and Survivability Interface (NH&S)

Maintenance Planning (MP)

Support and Test Equipment (SE)

Supply Support (SS)

Transportation and Packaging (T&P)

Technical Data (TD)

Support Facilities (SF)

Personnel and Training (P&T)

Logistic Support Management Information (LSMI)

Logistic Support Resource Funds (LSRF)

For each area of support activity, the MX Program Office has designated a logistic element manager (LEM) responsible for managing the accomplishment of the tasks associated with his element.

1.2 PURPOSE

This document is a Logistic Element Management Plan for the Support Facilities element. It has been written to provide the SF-LEM with guidance in managing this element and ensuring the integration of support facilities requirements into the system design process. This plan, and those developed for the other eleven logistic elements, will become supplementary documents to the ILSP.

1.3 MX PROGRAM

The MX Program has been implemented to provide the technology base for the development of an improved land-based strategic missile weapon system. Efforts are being directed toward the design, development, and deployment of an ICBM system within one of two nuclear hardened, multiple aim point (MAP) basing alternatives. The two currently favored basing options are the buried-trench and shelter-based weapon systems.

Full scale development (FSD) of the MX Weapon System is divided into two major efforts: missile development, including the missile and canister; and weapon system development, which includes the MAP basing hardware, software, and facilities, and the integration of the missile/canister with these equipments and facilities.

2 SCOPE

This Logistic Element Management Plan structures the support facilities logistic requirements of the ILSP into identifiable responsibilities of the SF-LEM and delineates the tasks associated with these responsibilities. The plan is applicable to the FSD phase of the MX Weapon System, with overlap to the preceding validation and system definition phases and succeeding production/deployment phases. The plan applies to all elements of the weapon system, including the air vehicle, support functions, and the selected basing option. In addition, this plan:

- a. Provides an overview of the MX program management concept, and the LEMs' position in the management structure.
- b. Describes the ILS program and the functions of the SF-LEM within that program.
- c. Describes the participation of the SF-LEM in the ILS Management Information System.
- d. Indicates the interdependencies among tasks and the coordination among all members of the Integrated Logistic Support Management Team (ILSMT), the project element officers (PEOs), and systems engineering.
- e. Presents a basic schedule for the performance of tasks by relating each task to the time frame of major program events.
- f. Indicates the interrelationships of the SF-LEM with the remaining logistic elements.

3

REFERENCE DOCUMENTS

The following document listing is provided as a reference source relating to the implementation of an ILS program and the Support Facilities logistic element.

DoD Directive 4100.35	Development of Integrated Logistic Support for Systems/Equipment, 1 October 1970
DoD 4100.35G	Integrated Logistic Support Planning Guide for DoD Systems and Equipment, 15 October 1968
DoD 4270.1-M	Construction Criteria Manual, 18 September 1972
AFM 86-2	Standard Facility Requirements, 1 March 1973
AFM 88-15	Design Manual, Criteria and Standards of Air Force Construction, 8 January 1975
AFP 800-7	Integrated Logistic Support Implementation Guide for DoD Systems and Equipments, March 1972
AFR 800-8	Integrated Logistic Support (ILS) Program for Systems and Equipment, 27 July 1972
SAMSO Supplement to AFR 800-8	Integrated Logistic Support (ILS) Program for Systems and Equipment, 7 September 1976
	SAMSO Facilities Design Manual
SAMSO R 88-3	Preparation of Facilities As-Built Drawings, 14 October 1970
ICBM PO ED 77-6	System Requirements Analysis Programs for the MX Weapon System, 24 May 1977
ICBM PO ED 77-3	ICBM Program Office Engineering Directive for the Integrated Test Plan for MX Weapon System 22 June 1977
ILSP	Missile-X Integrated Logistic Support Plan, June 1977
PO Manual	ICBM PO Project Officers' Manual, 1 July 1976
SAMSO/MNL Publication	ILS Management Information System Report, 31 August 1977

4 PROGRAM MANAGEMENT

Management of the MX Weapon System Program is the responsibility of the ICBM Program Office. The Program Manager has the overall responsibility for acquisition and integration management of the program, and is supported by the following Directorates within the ICBM Program Office:

- Logistics
- Engineering
- System Acquisition Management Support
- Procurement and Production
- Deployment
- Program Control

The ICBM Program Office comprises a team of Air Force and contractor personnel. That office operates with a functionally decentralized organizational structure, which has resulted in the implementation of the Project Element Management System. In this system, the program is divided into a series of discrete, functional elements, each managed as an entity by a designated project element officer responsible for monitoring the technical, cost, and schedule performance of one or more MX associate contractors. No prime contractor will be designated for the MX Program. Rather, the ICBM Program Office will function as the system integrator.

4.1 ILS PROGRAM ORGANIZATION

4.1.1 Deputy Program Manager for Logistics

The Deputy Program Manager for Logistics (DPML) was assigned from HQ AFLC with the concurrence of the MX Program Manager, and serves as the focal point for MX logistics management. The DPML and his organization are an integral part of

the ICBM Program Office and form the Directorate of Logistics (MNL). Within the MX Program, it is the responsibility of the DPML to assure that:

- a. Continuous attention is given to logistic support posture and costs throughout the acquisition process.
- b. Tradeoff studies affecting system design are evaluated to determine their impact on supportability, life cycle cost, and operational requirements.
- c. All objectives of ILS are achieved for the MX Weapon System.

The DPML will draw upon the support of the designated logistic element managers to obtain timely contributions to those system design and support decisions which affect logistic support costs and effectiveness throughout the life of the system.

4.1.2 Logistic Element Managers

As discussed in paragraph 4, the Program Office operates with a functionally decentralized organization structure. This decentralization has positioned ILS elements (as defined by AFR 800-8) outside of the Logistics Directorate, in company with those engineering design elements (e.g., Reliability) normally external to the logistics organization. Logistic element managers have been designated within each functional logistic-related area. In addition, the Technical Data and Supply Support elements are further separated into subelements to gain maximum benefits from the decentralized organizational structure. The elements, by Directorate, are shown in Figure 4-1.

The manager for each element is the single point of contact for the DPML in the management of all logistic integration aspects of the assigned element. The LEM assures that the tasks associated with his element, as defined within this Logistic Element Management Plan, are accomplished. He provides liaison and coordination among the other logistic element managers as required for the achievement of integrated logistic support. He further assures that all relevant ILS data are collected, analyzed, reported, and disseminated, as appropriate, for his element.

Each LEM also plays a key role in supporting the Program Office's function as integrating agency of all associate contractor activities. The SF-LEM supports engineering personnel and the PEOs by providing the management assistance needed to identify the contractual requirements relative to his element. In so doing,

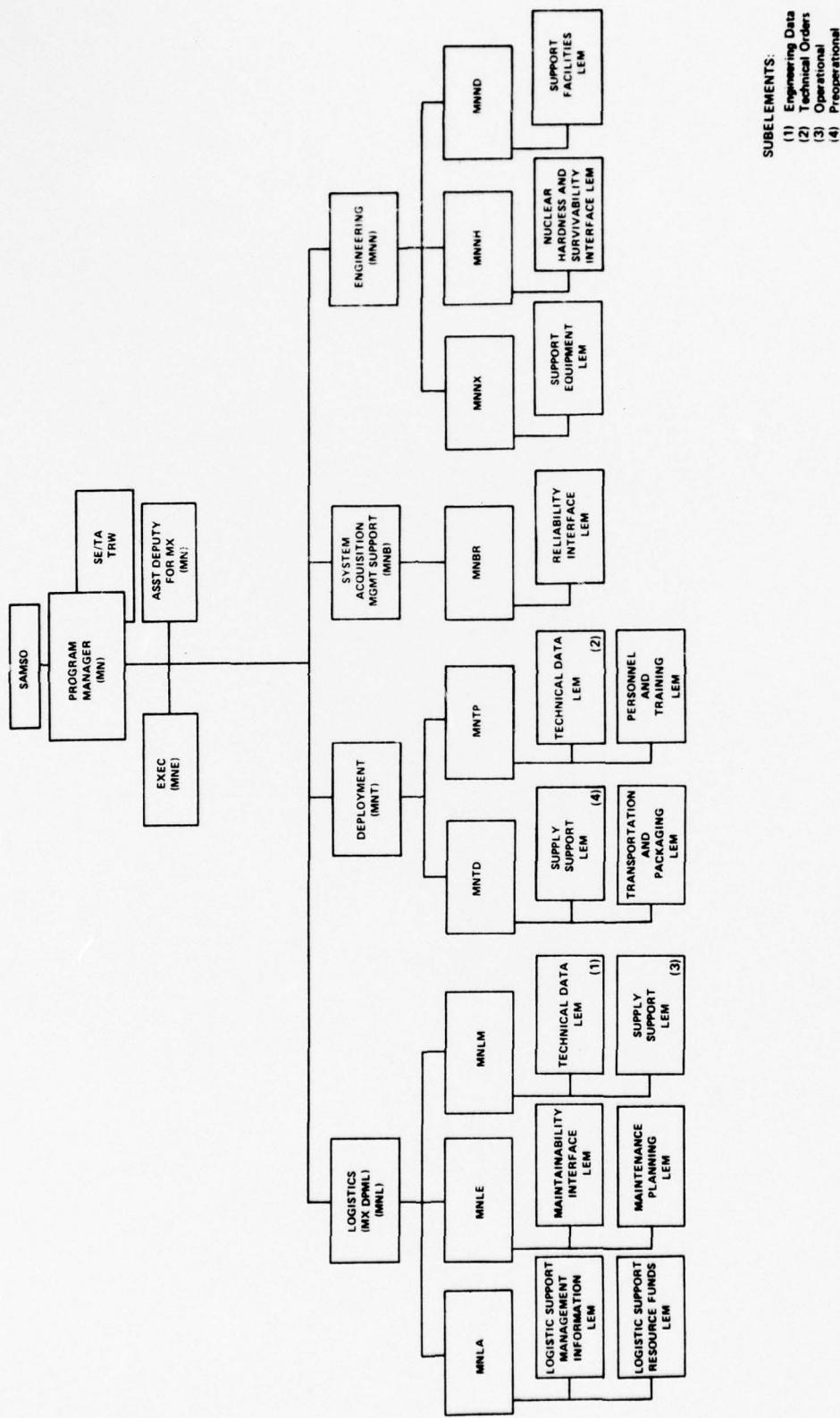


Figure 4-1. MX Program Logistic Element Managers

he assures that a system integration approach is used in determining the requirements for each associate contractor. Due to the large number of associates involved, a significant coordination effort will be required by the LEM within his logistic element to maintain cognizance of the activities that impact on logistics.

Each LEM is a member of the Integrated Logistic Support Management Team, and through active participation as a team member he supports the DPML in managing the accomplishment of the Program Office's acquisition logistics tasks.

It is through the exchange of information at ILSMT meetings and the inter-relationships of LEMs that the DPML will acquire the program information necessary to assure the integration of logistic support elements into the total program requirements.

4.2 ILS MANAGEMENT INFORMATION SYSTEM

The ILS Management Information System was developed to assist the DPML and all logistic element managers in their efforts to achieve the logistic objectives of the MX Weapon System. Management and direction of the information system's activities are the responsibility of the DPML. This responsibility is discharged primarily through his position as chairman of the ILSMT and of technical interchange meetings.

Successful implementation of the ILS MIS depends on each LEM's accomplishment of the tasks delineated in his LEM plan, through fulfilling his reporting responsibilities, and through active participation in the ILSMT.

The ILS Management Information System Report dated 31 August 1977 provides a complete description of the ILS MIS and the LEMs' role in implementing the system. Figure 4-2 depicts the information flow of the ILS MIS, and will serve as an aid in understanding the data input/output and coordination activities of the SF-LEM as defined in Sections 5 and 6 of this plan.

In general, much of the management information will involve estimates, or other planning data in which the quality of the data used will vary over some acceptable range. The criteria provided for use by the LEMs in describing the relative quality of MIS data are presented in tables within the Integrated Logistic Support Management Information System Report. Assistance to the LEMs for participating in the ILS MIS, as both contributor and user, will be provided by the Logistic Support Management Information LEM.

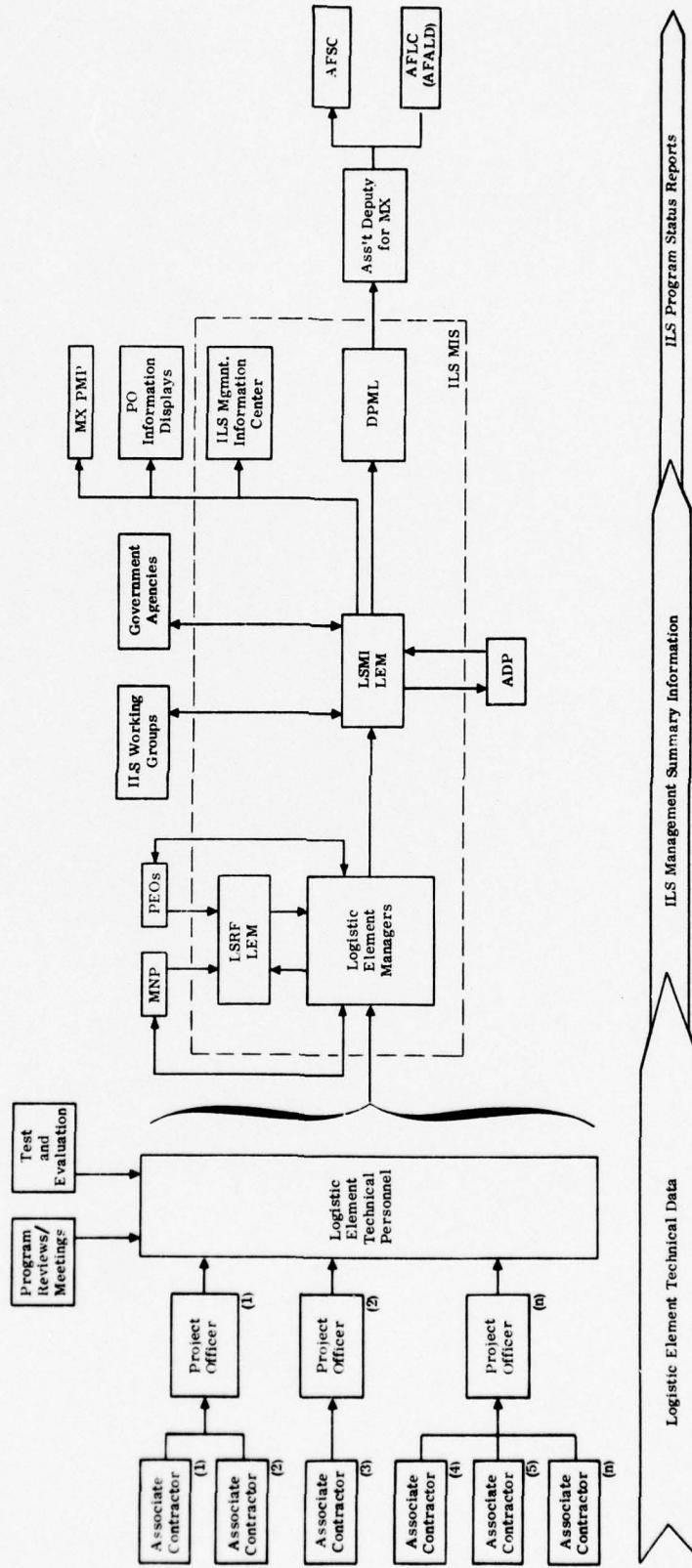


Figure 4-2. Information Flow of the ILS MIS

A typical schedule showing program events for the logistic element addressed in this plan is shown in Appendix C. This schedule depicts the general type of information required as input to the management information system for tracking the progress of each associate contractor in fulfilling the requirements for a specific logistic element. This type of information is also a prerequisite to the LEM's effort of tailoring the task schedule shown in Table 6-1 to each associate contractor's unique development activities.

GENERAL REQUIREMENTS

5.1 INTEGRATED LOGISTIC SUPPORT PROGRAM

Integrated Logistic Support is a concept that encompasses the total and timely support of a system/equipment, within acceptable life cycle cost criteria, for the duration of its useful life. Realization of this concept is achieved through planning and analysis tasks for the subsequent procurement of all required support as part of the total acquisition process.

An ILS program has been implemented for the MX Weapon System to assure that the ILS concept impacts the system design process in a manner that will improve supportability and control O&S costs. Within the ILS program, logistic elements have been identified (see paragraph 1.1). These elements are areas of support activity which, when collectively considered, provide the basis for the acquisition of the human, material, and financial resources required to maintain a system in an acceptable state of operational readiness within affordable cost criteria.

Essentials of the ILS program include the analysis and definition of quantitative and qualitative logistic support requirements; the prediction of logistic support costs; and the performance of tradeoff studies and evaluations. The responsibility for performance of these efforts rests with the ICBM Program Office and its supporting directorates. However, the responsibility for monitoring and assuring the accomplishment of these efforts has been assigned to the logistic element managers. Each Logistic Element Management Plan delineates the detailed areas of responsibility for a specific LEM.

Figure 5-1 depicts the information flow among the various LEMs during the performance of their ILS efforts. While the information flow will primarily be in the direction indicated by the arrows in that diagram, situations will arise where information must be passed in both directions. Additionally, the information flow might be influenced by variations in logistic information requirements among the configuration end items. Figure 5-1a (inset in Figure 5-1) indicates that the impact of the ILS concept on the system design is achieved through the logistic support analysis efforts.

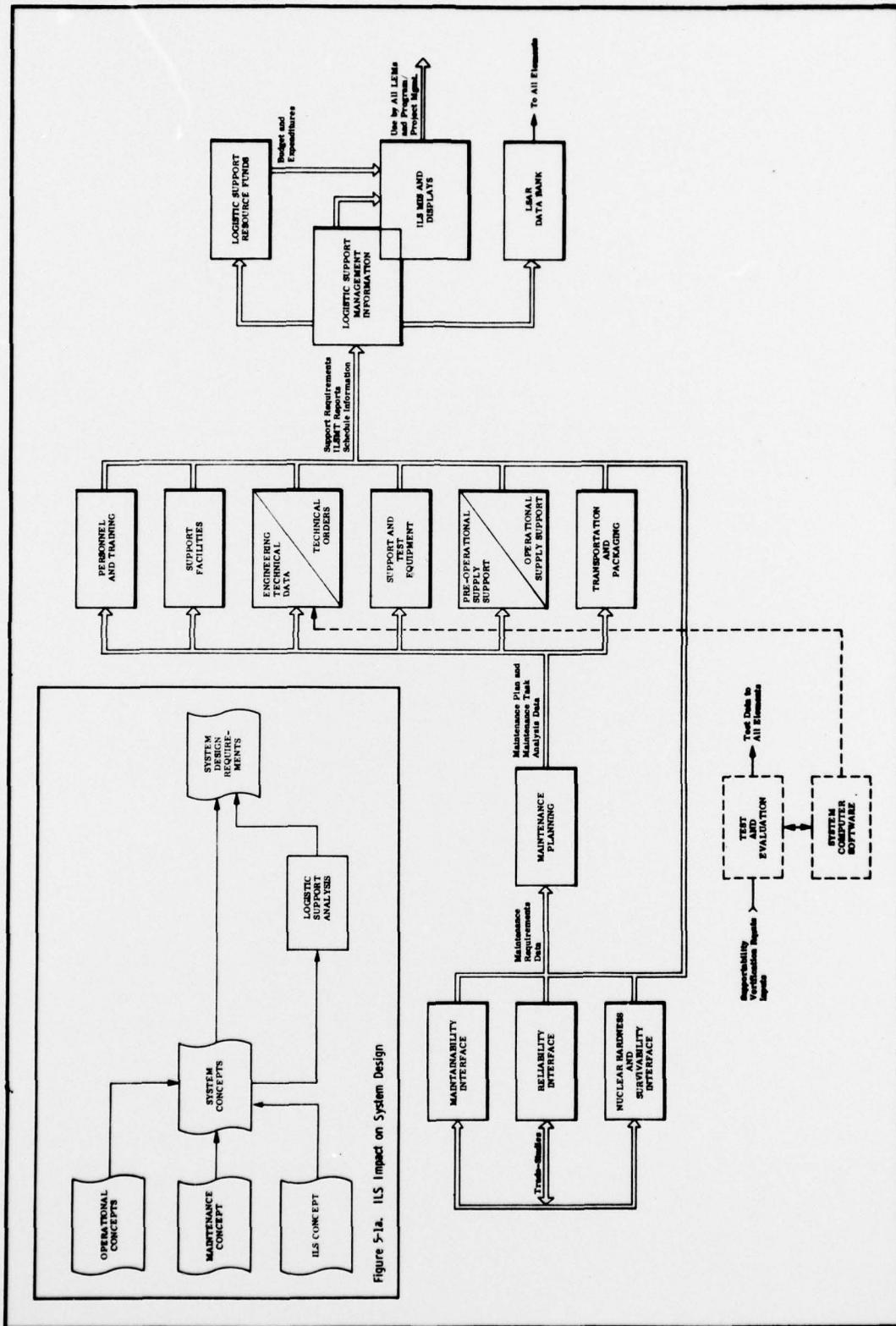


Figure 5-1. Primary Interface Relationships of Logistic Elements

5.2 SUPPORT FACILITIES LOGISTIC ELEMENT

The Support Facilities logistic element encompasses those efforts which assure that all required buildings/structures to be used for storage, maintenance, and repair of subsystems and equipment of the MX Weapon System are available to the operating forces and supporting activities in a timely manner. Facilities planning is based on systems requirements analyses, particularly the logistic support analysis and maintenance task analysis. The planning effort requires logistic management attention through all phases of the life cycle, to provide positive coordination with other logistic elements with regard to facility design criteria, dates of need, construction lead times, and LCC/DTC criteria. The SF-LEM will implement a number of tasks to assure that support facilities requirements are fulfilled for the MX Weapon System. He will develop a schedule of these assurance tasks for each FSD contract that requires the preparation of facility criteria.

In the performance of his assurance functions, the SF-LEM will coordinate, as necessary, with PEOs, OPRs, systems engineering, and other LEMs. Additionally, in areas such as test and evaluation and software support that do not have LEM representation, coordination may be required with POs. His membership in the ILSMT will require the preparation of status reports, the initiation of problem/impact statements, the development of schedule information for the MIS, and the resolution of assigned action items.

SF-LEM MANAGEMENT RESPONSIBILITIES AND TASKS

6.1 RESPONSIBILITIES

The Support Facilities LEM assists the Deputy Program Manager for Logistics in assuring that the SF aspects of the ILS program are achieved, and that support facilities requirements are based on the system/equipment design. Responsibilities of the SF-LEM include:

- a. Coordinating the SF element of logistics for the MX Program.
- b. Serving as the point of contact for MX logistic support analysis efforts concerning support facilities.
- c. Establishing lines of communication with each PEO, and providing assistance in all matters pertaining to the SF logistic element.
- d. Providing SF inputs to the ILS Management Information System.
- e. Ensuring that cost-effective criteria are applied to the preparation of support facilities requirements.
- f. Acting as the support facilities representative to the ILSMT.

6.2 MANAGEMENT TASKS

The scope of each task identified in this plan must be tailored by the SF-LEM for each specific procurement. Consequently, the applicable data items and the degree of coordination activities will vary with the scope of the task.

While the tasks identified below are intended to be comprehensive relative to the scope of the SF-LEM's responsibilities, additional tasks may become apparent during the implementation of this plan. The LEM is responsible for assuring that these new tasks are planned and scheduled for each applicable procurement. The new tasks should be documented, this plan updated as applicable, and the appropriate information provided to the LSMI-LEM for updating the MIS and its information displays.

The following paragraphs describe the tasks to be performed. Table 6-1 (see paragraph 6.3) presents a task summary and indicates applicable data items,

expected coordination required for the tasks, and a schedule relating tasks to major program events.

• Task 1

Assure that the maintenance task analysis data impacting on the design of maintenance support facilities are reviewed. The purpose of the review is to verify that the facility design accommodates 1) the requirements indicated by the maintenance and repair tasks to be performed on MX subsystems or equipment, 2) the moving and handling of large or heavy MX subsystems or equipment within the facility, and 3) the required environment within which maintenance personnel will function.

The review of environmental criteria will include coordination with systems engineering, the P&T-LEM, and the Human Factors Engineering Division. When appropriate, the Support and Test Equipment LEM will be consulted and requested to provide inputs related to a facility's requirements for accommodating support and test equipment. The Transportation and Packaging LEM will be consulted for special handling considerations relating to MX subsystems and equipment within the facility.

• Task 2

Assure that storage facility design criteria are reviewed to ascertain that the facility accommodates the size, environmental, and security requirements for the storage of MX subsystems, equipments, and/or spare parts. The NH&S- and T&P-LEMs will be consulted to ensure that the facility accommodates the requirements for special handling of MX hardware stored within the facility. Additionally, MP- and SS-LEMs will be contacted to identify the locations and numbers of spares and repair parts to be stored in the facility. Finally, deployment POs will establish the criteria for determining the size of each operational unit storage area.

• Task 3

Assure that information and/or guidance is provided to the Facility Engineering agency concerning:

- a. Suitability of existing and available MINUTEMAN maintenance and storage support facilities
- b. Adequacy of support facility criteria contained in the prime item development specifications

- c. Adequacy of contractually required support facilities data (specified by the CDRL) to ensure that logistic criteria are satisfied
- d. Support facility requirements at the system level to ensure no duplication of efforts among the various MX system hardware contractors with respect to the development of facility plans.

- Task 4

Assure that contractor-prepared LSAR data sheets F pertaining to support facilities are reviewed for completeness and accuracy, and that these data are available at major system design review meetings. Assure that these data sheets are updated in a timely manner to reflect the latest available design criteria for support facilities.

- Task 5

Assure that engineering change proposals for MX Weapon System hardware are reviewed with respect to potential influences on ILS in the area of support facility design. The SF-LEM verifies that the required reviews and analyses have been performed and that actual or potential effects on ILS have been identified. The SF-LEM coordinates with each PEO, facilities engineering, and other LEMs as necessary, in implementing this assurance effort.

- Task 6

Support the preparation and updating of logistic documentation. The SF-LEM reviews/develops/updates support facility information contained in or to be a part of MX program documents concerning ILS. The DPML will provide guidance for the performance of this effort. The documents involved include those developed both by the Logistics Directorate and other program groups. The SF-LEM will prepare, for each appropriate document, the logistic information pertaining to support facilities and will coordinate with systems engineering, the OPRs for each document, and other LEMs as appropriate for the development/updating of the documents.

6.3 PREFACE TO TASK TABLE

Table 6-1 lists the tasks discussed in Section 6.2, together with the corresponding data items and coordination required in the performance of the tasks. The schedule

shown in the table indicates the availability dates of data items relative to major program milestones. The SF-LEM will prepare a schedule for the completion of the tasks applicable to each facility, using contract award dates as the basis for assigning calendar dates to each schedule.

TABLE 6-1. SUPPORT FACILITIES LEM TASKS (Sheet 1 of 2)

Tasks	Applicable Data Items	Coordination	Milestone Schedule						Production Release
			RFP Release	Contract Award	SDR	PDR	CDR	FCA	
1. Assure that proposed maintenance facility designs accommodate repair tasks, handling of equipment, and required maintenance environment.	1. LSAR data sheet F 2. Maintenance task analysis data (LSAR data sheet D) 3. Subsystem Design Analysis Report (Facilities), (DI-S-3581)	MP-, P&T-, SE-, T&P- LEMs; H/F engineering division, PEOs, civil engineering							
2. Assure that proposed storage facilities for equipment spares, and repair parts satisfy size; environmental and handling requirements; and security requirements.	1. Subsystem Design Analysis Report (Facilities), (DI-S-3581) 2. LSAR data sheet F	NH&S-, MP-, SS- and T&P-LEMs, PEOs, H/F engineering, civil engineering, deployment POs							
3. Assure that information and/or guidance is provided to the Facility Engineering Agency concerning:									
a. Suitability for MX of existing and available MINUTEMAN maintenance and storage facilities.	1. Existing facility inventory 2. LSAR data sheet F 3. Subsystem Design Analysis Report (DI-S-3581)	MP-, P&T-, T&P- LEMs, civil engineering							
b. Adequacy of support facility criteria contained in prime item specifications.	1. LSAR data sheet F 2. Subsystem Design Analysis Report (Facilities) (DI-S-3581) 3. TOR Environmental Protection Program Plan	MP-, P&T-, T&P-, SS-, SE-LEMs, civil engineering							
c. Adequacy of contractor required support facilities data to ensure that logistic criteria are satisfied.	1. LSAR data sheet F 2. Subsystem Design Analysis Report (Facilities) (DI-S-3581) 3. TOR Environmental Protection Program Plan	PEOs MP-, P&T-, T&P-, SS-, SE-LEMs, civil engineering							

TABLE 6-1. SUPPORT FACILITIES LEM TASKS (Sheet 2 of 2)

Tasks	Applicable Data Items	Coordination	Milestone Schedule					
			RFP Release	Contract Award	SDR	PDR	CDR	FCA
3. (Continued)	<p>4. TOR/Environmental Impact Assessments /</p> <p>5. Site Selection and Evaluation Report (DI-S-3552)</p> <p>6. Facilities System Performance Data (DI-S-3554)</p> <p>7. Preliminary Facilities Design Package (DI-S-3558)</p> <p>8. Final Facilities Design Package (DI-S-3559)</p> <p>9. Siting Criteria (DI-S-3560A)</p> <p>10. Facilities Requirements Plan (DI-S-6175A)</p> <p>11. Facilities Design Criteria (DI-S-6174A)</p> <p>12. Facilities Design Concepts (DI-S-6175A)</p> <p>Same as above</p> <p>d. Assurance of non-duplication of effort among separate hardware contractors in the development of support facility plans</p> <p>4. Assure that LSAR data sheets F are reviewed for completeness and accuracy. Assure that these data are avail. for maj. des. review.</p> <p>5. Assure that ECPs for hardware are reviewed for impact on support facilities designs with respect to potential influences on ILS.</p> <p>6. Support preparation and updating of logistic documentation.</p>							

APPENDIXES

Appendix A: Missile-X Program Logistic Element Manager Directory	A-1
Appendix B: Acronyms and Abbreviations	B-1
Appendix C: Schedule for the Support Facilities Logistic Element	C-1

APPENDIX A

MISSILE-X PROGRAM
LOGISTIC ELEMENT MANAGER DIRECTORY
Col. L. E. Eklund, DPML

Logistic Element	Manager	Code	Ext.	Room
Reliability Interface	Capt. T. M. Palmer	MNBR	5359	421
Maintainability Interface	Capt. A. D. Wadsworth	MNLE	4523	619
Nuclear Hardness and Survivability Interface	Capt. W. R. Jacobs	MNNH	7843	711
Maintenance Planning	Lt. Col. R. W. Ayars	MNLE	4523	619
Support Equipment	Lt. Col. B. W. Woolverton	MNNX	7005	138
Supply Support (Preoperational)	Mr. F. C. O'Connor	MNTD	6481	600
Supply Support (Operational)	Mr. J. A. Davidson	MNLM	5321	621
Transportation and Packaging	Mr. R. W. Riggs	MNTD	5474	600
Technical Data (Engineering)	Mr. L. E. Onstott	MNLM	5321	621
Technical Data (Technical Orders)	Maj. L. W. Cooper	MNTP	6684	609
Support Facilities	Mr. F. E. Longan	MNND	6891	408
Personnel and Training	Maj. L. W. Cooper	MNTP	6684	609
Logistic Support Resource Funds	Capt. H. B. Robbins	MNLA	5395	623
Logistic Support Management Information	Mr. J. L. Peterson	MNLA	5386	623

APPENDIX B
ACRONYMS AND ABBREVIATIONS

A&CO — Assembly and Checkout
ADP — Automatic Data Processing
AFALD — Air Force Acquisition Logistics Division
AFLC — Air Force Logistics Command
AFSC — Air Force Systems Command
AFTEC — Air Force Test and Evaluation Center
BTWS — Buried Trench Weapon System
C/A — Contract Award
CDR — Critical Design Review
CDRL — Contract Data Requirements List
CDRS — Contract Data Requirements Substantiation
CDSR — Cost Data Summary Report
CEI — Configuration End Item
CFSR — Contract Funds Status Report
CPR — Cost Performance Report
DPML — Deputy Program Manager for Logistics
DT&E — Development Test and Evaluation
FCA — Functional Configuration Audit
FCHR — Functional Cost Hour Report
FMA — Failure Mode Analysis
FSD — Full Scale Development
ICBM — Intercontinental Ballistic Missile
IOT&E — Initial Operational Test and Evaluation
ILS — Integrated Logistic Support
ILSMT — Integrated Logistic Support Management Team
ILSP — Integrated Logistic Support Plan
ISP — Integrated Support Plan
ITP — Integrated Test Plan
LEM — Logistic Element Manager

LSA — Logistic Support Analysis
LSAR — Logistic Support Analysis Record
MDR — Missile Design Review
MIC — Management Information Center
MIS — Management Information System
MPP — Maintainability Program Plan
MTBF — Mean Time Between Failures
MTTR — Mean Time to Repair
MX — Missile-X
OPR — Office of Primary Responsibility
OT&E — Operational Test and Evaluation
PCA — Physical Configuration Audit
PDR — Preliminary Design Review
PEO — Project Element Officer
PMP — Program Management Plan
PO — Project Officer
RPP — Reliability Program Plan
SAMSO — Space and Missile Systems Organization
SBWS — Shelter Based Weapon System
SDR — System Design Review
SOW — Statement of Work
SRA — System Requirements Analysis
T&E — Test and Evaluation
TI — Technical Interchange
TPA — Test Planning Analysis

APPENDIX C
SCHEDULE FOR SUPPORT FACILITIES LOGISTIC ELEMENT

Validation/ System Definition		Full Scale Development			Production/Deployment	
Major Missile Milestones	C/A △	MDR △ C/A △	SDR △ SDR △	PDR △ △ PDR △	CDR △ △ CDR △	Flight tests △ MAP Tests △ IOC △
Major MAP Basing Milestones						
1. Assoc. Contr. Data						
Integrated Support Plan		Review △				
Environ. Protection Pgm. Plan		△				
Environ. Impact Assess/ Analysis Report		△				
2. Final Environ. Statements			Missile △		Initial △ Basing △	Update △ Deployment △
3. Programming (MCP)			Initial △		Final △	Approved △
4. SF Design Phase				AT&SS contr. △ develop. criteria △	Document release △	
SF Criteria					Select A/E △	
SF Design					Arch./Engrg. design △	
5. SF Construction Phase					IFB △	Construction △
SF Construction						
Hardware I&CO						△ I&CO △